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EXAMINER
HAJNIK, DANIEL F

ART UNIT	PAPER NUMBER
2628	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/618,203	SAINT-HILAIRE ET AL.	
	Examiner	Art Unit	
	Daniel F. Hajnik	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *7/2/2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/2/2007 has been entered.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 5, 6, 17-19, and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Lok et al. (US Pub 2003/0182469).

As per claim 1, Lok teaches the claimed:

1. In a device *(in figure 3, piece 104, "Client")* comprising an image cache *(figure 3, piece 116, "Client Frame Buffer" where the buffer is acting as an image cache)*, a method comprising;

receiving, via a network from another device remote to the device, a motion command *([0027], "The component in the user interface toolkit may be configured to render a graphical item and the remote-capable component may be configured to generate a command to render a graphical item" where the motion is the changing or movement within different user interface elements, i.e. selection of different items in the dropdown menu 216 in figure 6a)*, wherein the motion command, without including pixel values generated by the another device *([0039], "the baseline interface toolkit 110, but which issue remote messages rather than execute graphical functions ... transmits the commands across the network to the client 104 ... A client viewer ... translates the messages issued ... which are rendered on the client frame buffer 1")*, directs animation of an image object stored in the image cache over a time period *([0041], "In rendering the graphical component, the toolkit may include commands to display a plurality of shapes, colors, and text. The toolkit is configured to interact with the application according to an application programming interface. For example, the toolkit receives an invocation, or call, from the application to draw graphical components at certain times during the operation of the application" where drawing graphical components at certain times can create animation effects);*

updating a frame buffer of the device with the image object of the image cache over a the time period to animate the image object per the motion command *([0041], "For example, the toolkit receives an invocation, or call, from the application to draw graphical components at certain times during the operation of the application" where drawing graphical components in the image cache will cause an update and [0027], "Similarly, the server may be configured to*

communicate the message to the user interface toolkit on the remote client to render a graphical item in response to the invocation by the application" where communicating a message to render can be animating over time).

Presenting the animation of the image object on a display of the device *([0041], "a toolkit has the ability to draw a frequently-used, graphical components on a user display as commanded by an application running on the computer").*

As per claim 2, Lok teaches the claimed:

2. The method of claim 1 further comprising generating a video output signal representative of the frame buffer and the motion of the image object *([0041], "a toolkit has the ability to draw a frequently-used, graphical components on a user display as commanded by an application running on the computer" where the displaying requires an output signal).*

As per claim 5, Lok teaches the claimed:

5. The method of claim 1 further comprising

receiving the image object from the another device *([0046], "receiving commands to draw graphical items")*, and

storing the image object in the image cache *([0039], "remote-baseline interface toolkit 110, which are rendered on the client frame buffer 116" where image object is stored as a rendered object).*

As per claim 6, this claim is similar in scope to claims 4 and 5, and thus is rejected under the same rationale.

As per claim 17, Lok teaches the claimed:

17. An apparatus *(in figure 3, piece 102, "server")* comprising

at least one processor to execute instructions *([0054], "The application logic 106 is executed entirely in the server 102" where executing requires a processor)*,

a network interface controller to transmit commands to a remote device *(in the abstract, "A network communication protocol of sending messages between the remote-capable user interface toolkit on the server and the user interface toolkit on the client" where a network interface controller is required to make the network communication protocol work properly)*,

a memory comprising a plurality of instructions that in response to being executed by the at least one processor *([0054], "The application logic 106 is executed entirely in the server 102" where the application logic has instructions associated with the logic)*, result in the at least one processor,

loading the remote device with image objects *([0027], "Similarly, the server may be configured to communicate the message to the user interface toolkit on the remote client to render a graphical item" where graphical items can have image objects associated with them)*, and

transmitting one or more motion commands via the network interface controller to the remote device *([0027], "The component in the user interface toolkit may be configured to render a graphical item and the remote-capable component may be configured to generate a command*

to render a graphical item" where the motion is the changing or movement within different user interface elements, i.e. selection of different items in the dropdown menu 216 in figure 6a), wherein the one or more motion commands, without including pixel values generated by the apparatus, request the remote device to animate one or more loaded image objects *([0039], "the baseline interface toolkit 110, but which issue remote messages rather than execute graphical functions ... transmits the commands across the network to the client 104 ... A client viewer ... translates the messages issued ... which are rendered on the client frame buffer 1", in this instance, graphical commands are transmitted, however, pixel values generated by the apparatus are not transmitted because they are rendered on the remote client device).*

As per claim 18, Lok teaches the claimed:

18. The apparatus of claim 17 wherein the plurality of instructions further result in the at least one processor generating the one or more motion commands based upon one or more events generated by an application of the apparatus *([0044], "When the user clicks the button, the toolkit generates an event. In this case, the result may be that a toolkit text window is automatically closed when the event listener detects an event triggered by the button component" where closing the toolkit text window is a command).*

As per claim 19, Lok teaches the claimed:

19. The apparatus of claim 17 wherein the plurality of instructions further result in the at least one processor generating the one or more motion commands based upon one or more events received from the remote device via the network interface controller *([0046], "These events are*

then conveyed to the application according to the application programming interface, which enables the application to take some action based on the events generated by the user" where events can be communicated across the network between client 104 and server 102 in figure 3).

As per claim 30, the reasons and rationale for the rejection of claim 17 is incorporated herein.

Lok teaches the claimed:

30. A machine-readable storage medium comprising a plurality of instructions that in response to being executed, result in an apparatus, determining to update a graphical user interface in response to one or more events *([0053], "the application logic 106 which resides on the server 102 interacts with the remote client 104 by making calls on the RJFC components on the server 102 alone" where application logic to reside on the server requires a storage medium and [0054], "The application logic 106 is configured by the programmer to interact with the user interface toolkit according to an application programming interface" where the user interface can be a graphical user interface)*,

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 3, 4, 7, 9-11, 15, 16, 20, 21, 24-27, 31, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lok et al. (US Pub 2003/0182469) in view of Merrill et al. (US Patent 6,369,821)

As per claim 3, Lok does not teach the claimed limitations.

Merrill teaches the claimed:

3. The method of claim 1 further comprising

receiving a background image from the another device *(col 5, lines 42-46, "During playback of the animation, the server relies on graphic support software in the underlying operating system 120 to create windows, post messages for windows, and paint windows and col 4, lines 66-67, "the color of corresponding pixels in the background bitmap". Thus, for animation playback the background image data can be transferred from the server to the client and displayed on the client),*

storing the background image to a background buffer *(col 9, lines 30-32, "The loader constructs a composite bitmap by performing bit block transfers from the decompressed bitmaps to an off-screen buffer" where part of the off-screen buffer can be a background buffer where background pixels are stored. This is because the animation is drawn overtop the background, thus in order to form a composite bitmap, some background data is used and maybe loaded from an offscreen buffer)*, and

updating the frame buffer with the background image prior to updating the frame buffer with the image object *(col 11, lines 27-29, "Finally, the operating system performs a bit block transfer of this portion to the frame buffer to display the current frame of animation").*

It would have been obvious to one of ordinary skill in the art at the time of invention to combine Lok with Merrill in order to enhance the graphical user interface with more interesting features and design through the use of background images.

As per claim 4, the reasons and rationale for the rejection of claim 3 is incorporated herein. Lok does not teach the claimed limitations.

Merrill teaches the claimed:

decompressing the background image *(col 4, lines 66-67, "the color of the corresponding pixels in the background bitmap" and col 13, lines 23-24, "If the image bits are in a compressed format they are decompressed")* and

storing in a decompressed form *(col 13, lines 31-33, "The animation is played by first rendering the uncompressed frame image data for the next frame to an offscreen video memory buffer").*

It would have been obvious to one of ordinary skill in the art to use the claimed feature with Lok. The motivation of claim 1 is incorporated herein.

As per claim 7, Lok does not teach the claimed limitations.

Merrill teaches the claimed:

7. The method of claim 1 wherein

the motion command indicates first location, second location, and the time period *(col 4, lines 31-32, "The animated character 60 can move anywhere in the user interface", col 10, line 66, "The first step is to position the region window at the appropriate location as specified by the frame's x, y coordinate in the frame data block" (first position) and col 22, "Move to—This*

method moves the animation to a specified location in screen coordinates" (second location) and col 14, lines 4-6, "After the frame image is rendered to the display device, an operating system timer is set to go off in the amount of time specified by the frame's duration" (a time period));

updating the frame buffer with the image object comprises updating the frame buffer to animate the image object moving from the first location to the second location over the time period *(col 11, lines 27-29, "Finally, the operating system performs a bit block transfer of this portion to the frame buffer to display the current frame of animation").*

It would have been obvious to one of ordinary skill in the art to use the claimed feature with Lok in order to better organize the motion command data structures through the use of explicit coordinate locations and time periods.

As per claim 9, the reasons and rationale for the rejection of claim 7 is incorporated herein.

As per claim 10, Lok does not teach the claimed limitations.

Merrill teaches the claimed:

10. The method of claim 1 wherein

the motion command indicates a first scale, a second scale, and a the time period *(col 4, lines 31-32, "The animated character 60 can move anywhere in the user interface", col 15, line 31, "to scale an animation", 15, lines 33-34, "when the scale of an animation changes" where it is required for a changing animation during scaling to have a beginning scale (first scale) and ending scale (second scale), and col 14, lines 4-6, "After the frame image is rendered to the*

display device, an operating system timer is set to go off in the amount of time specified by the frame's duration" (the time period)),

updating the frame buffer with the image object comprises updating the frame buffer to animate the image object transitioning from the first scale to the second scale over the time period *(col 11, lines 27-29, "Finally, the operating system performs a bit block transfer of this portion to the frame buffer to display the current frame of animation").*

It would have been obvious to one of ordinary skill in the art to use the claimed feature with Lok in order to provide a wider array and more flexibility to the image manipulation techniques available to the user for making interesting user interfaces/

As per claim 11, the reasons and rationale for the rejection of claim 10 is incorporated herein.

As per claim 15, Lok does not teach the claimed limitations.

Merrill teaches the claimed:

15. The method of claim 1 further comprising receiving a cache management command from the another device, and updating the image cache per the cache management command *(col 14, lines 57-63, "However, after the region is used it is save to the region cache on disk. The next time the region is required it can simply be read from the cache instead of being generated in real-time. Thus, the system gets the benefit of the pre-computed region without it having to have been downloaded" where saving the region to cache is updating the image cache and this saving to the cache can be a cache management command).*

It would have been obvious to one of ordinary skill in the art to use the claimed feature with Lok in order to provide a more well-run and efficient cache by actively managing it through management commands.

As per claim 16, Lok does not teach the claimed limitations.

Merrill teaches the claimed:

16. The method of claim 1 further comprising providing the another device with an indication that the device has completed the motion command *(col 22, lines 66-67, "Stop—Clients invoke this method to halt the current animation and play the next queued animation" and col 32, lines 37-39, "The server monitors for these client-specific commands as well as global commands and sends a notification to the appropriate client when it detects the input command" where this notification can be an indication).*

It would have been obvious to one of ordinary skill in the art to use the claimed feature with Lok in order to provide better feedback to the another remote device and better communication.

As per claims 20 and 21, these claims are similar in scope to claims 7 and 10, respectively, and thus are rejected under the same rationale.

As per claim 24, this claim is similar in scope to claims 1 and 7, respectively, and thus are rejected under the same rationale.

As per claims 25, 26, and 27, these claims are similar in scope to claims 2, 7, and 10, respectively, and thus are rejected under the same rationale.

As per claims 31 and 32 these claims are similar in scope to claims 7 and 10, respectively, and thus are rejected under the same rationale.

3. Claims 8, 12, 13, 22, 23, 28, 29, 33, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lok in view of Merrill in further view of Stern (US Patent 4,600,919).

As per claim 8, the reasons and rationale for the rejection of claim 7 is incorporated herein. Lok does not explicitly teach the remaining claim limitations.

Stern teaches the claimed:

Image object moving along a curve *(in figure 10 where the image moves along a curve).*

It would have been obvious to one of ordinary skill in the art at the time of invention to combine Lok, Merrill, and Stern. Stern teaches one advantage of the combination, by teaching of generating realistic motion with minimal labor (an automated process using interpolation between key frames) (col 2, lines 7-13).

As per claim 12, Lok teaches the claimed:

updating the frame buffer with the image object comprises updating the frame buffer *([0041], "In rendering the graphical component, the toolkit may include commands to display a plurality of shapes, colors, and text ... the toolkit receives an invocation, or call, from the application to draw graphical components at certain times during the operation of the application" where drawing graphics at certain times can be updating).*

Lok does not explicitly teach the remaining claim limitation.

Stern teaches the claimed:

the motion command indicates a first rotation, a second rotation, and a the time period *(col 10, lines 33-36, "Each of the motion, rotation, and scaling parameters of the transformation matrices of the current joint are interpolated in the present invention, and this is done for each of the x, y, and z components" where this interpolation can occur between a starting rotation (first rotation) and an ending rotation (second rotation) over a period of time, i.e. over the frames shown in figure 10).*

It would have been obvious to one of ordinary skill in the art to use the claimed feature with Lok. The motivation of claim 8 is incorporated herein.

As per claims 13, 22, 23, 28, 29, 33, and 34, these claims are similar in scope to claims 12, 12, 8, 12, 8, 12, and 8, respectively, and thus are rejected under the same rationale.

4. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lok in view of Merrill in further view of Richardson (NPL Document, "The RFB Protocol").

As per claim 14, Lok does not explicitly teach the remaining claim limitations.

Richardson teaches the claimed:

14. The method of claim 1 further comprising receiving a capabilities command from the another device, and providing the another device with capabilities of the device *(page 7, section 5.1.1, first paragraph, "Handshaking beings by the server sending the client a ProtocolVersion*

message. This lets the client know which is the latest RFB protocol version number supported by the server" where this version number is part of the capabilities of the client).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine Lok, Merrill, and Richardson. One advantage of the combination is to increase the reliability of the system by ensuring adequate capabilities during interaction.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel F. Hajnik whose telephone number is (571) 272-7642. The examiner can normally be reached on Mon-Fri (8:30A-5:00P).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka J. Chauhan can be reached on (571) 272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

D. H.

DFH

ULKA CHAUHAN
SUPERVISORY PATENT EXAMINER